



SPEC® CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Fujitsu

SPECfp®2006 = **113**

PRIMERGY BX2560 M1, Intel Xeon E5-2640 v3, 2.6 GHz

SPECfp_base2006 = **107**

CPU2006 license: 19

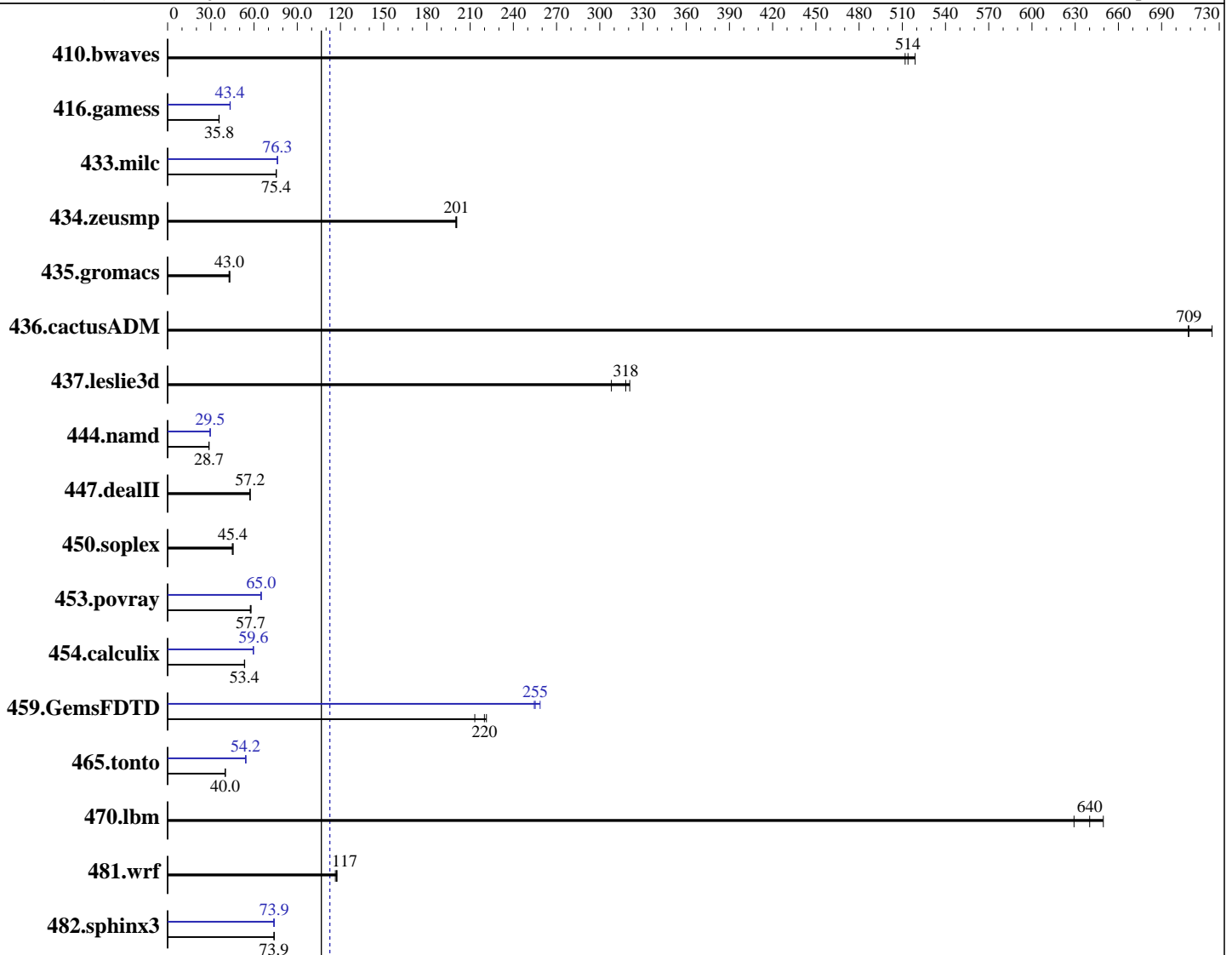
Test date: Dec-2014

Test sponsor: Fujitsu

Hardware Availability: Sep-2014

Tested by: Fujitsu

Software Availability: Sep-2014



SPECfp_base2006 = 107

SPECfp2006 = 113

Hardware

CPU Name: Intel Xeon E5-2640 v3
 CPU Characteristics: Intel Turbo Boost Technology up to 3.40 GHz
 CPU MHz: 2600
 FPU: Integrated
 CPU(s) enabled: 16 cores, 2 chips, 8 cores/chip, 2 threads/core
 CPU(s) orderable: 1,2 chip
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 256 KB I+D on chip per core

Continued on next page

Software

Operating System: Red Hat Enterprise Linux Server release 7.0 (Maipo)
 Kernel 3.10.0-123.8.1.el7.x86_64
 Compiler: C/C++: Version 15.0.0.090 of Intel C++ Studio XE for Linux;
 Fortran: Version 15.0.0.090 of Intel Fortran Studio XE for Linux
 Auto Parallel: Yes
 File System: xfs

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Fujitsu

SPECfp2006 = **113**

PRIMERGY BX2560 M1, Intel Xeon E5-2640 v3, 2.6 GHz

SPECfp_base2006 = **107**

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Dec-2014

Hardware Availability: Sep-2014

Software Availability: Sep-2014

L3 Cache: 20 MB I+D on chip per chip
 Other Cache: None
 Memory: 256 GB (16 x 16 GB 2Rx4 PC4-2133P-R, running at 1866 MHz)
 Disk Subsystem: 1 x SATA, 500 GB, 7200 RPM
 Other Hardware: None

System State: Run level 3 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: 32/64-bit
 Other Software: None

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	26.5	512	26.4	514	26.2	519	26.5	512	26.4	514	26.2	519
416.gamess	547	35.8	547	35.8	550	35.6	450	43.5	452	43.3	451	43.4
433.milc	122	75.4	122	75.4	122	75.4	120	76.3	120	76.3	120	76.2
434.zeusmp	45.3	201	45.5	200	45.4	201	45.3	201	45.5	200	45.4	201
435.gromacs	166	43.0	167	42.6	165	43.2	166	43.0	167	42.6	165	43.2
436.cactusADM	16.9	709	16.9	709	16.5	725	16.9	709	16.9	709	16.5	725
437.leslie3d	29.6	318	30.5	308	29.3	321	29.6	318	30.5	308	29.3	321
444.namd	279	28.8	279	28.7	280	28.7	271	29.5	271	29.6	271	29.5
447.dealII	200	57.2	200	57.3	200	57.2	200	57.2	200	57.3	200	57.2
450.soplex	184	45.4	183	45.5	186	44.9	184	45.4	183	45.5	186	44.9
453.povray	92.2	57.7	92.7	57.4	91.9	57.9	82.2	64.8	81.9	65.0	81.8	65.0
454.calculix	155	53.4	155	53.4	154	53.5	139	59.5	139	59.6	139	59.6
459.GemsFDTD	47.9	221	48.2	220	49.8	213	41.6	255	41.7	255	41.0	259
465.tonto	245	40.1	246	40.0	246	39.9	182	54.2	182	54.2	181	54.4
470.lbm	21.8	629	21.2	650	21.5	640	21.8	629	21.2	650	21.5	640
481.wrf	95.9	116	95.3	117	95.0	118	95.9	116	95.3	117	95.0	118
482.sphinx3	264	73.9	263	74.0	264	73.9	263	74.0	264	73.9	265	73.7

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

BIOS configuration:
 Energy Performance = Performance
 Utilization Profile = Unbalanced
 QPI snoop mode: Home Snoop
 COD Enable = Disabled, Early Snoop = Disabled
 CPU C1E Support = Disabled



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Fujitsu

SPECfp2006 = 113

PRIMERGY BX2560 M1, Intel Xeon E5-2640 v3, 2.6 GHz

SPECfp_base2006 = 107

CPU2006 license: 19

Test date: Dec-2014

Test sponsor: Fujitsu

Hardware Availability: Sep-2014

Tested by: Fujitsu

Software Availability: Sep-2014

General Notes

Environment variables set by runspec before the start of the run:

KMP_AFFINITY = "granularity=fine,compact,1,0"

LD_LIBRARY_PATH = "/home/SPECcpu2006/libs/32:/home/SPECcpu2006/libs/64:/home/SPECcpu2006/sh"

OMP_NUM_THREADS = "16"

Binaries compiled on a system with 1x Core i5-4670K CPU + 16GB memory using RedHat EL 7.0

For information about Fujitsu please visit: <http://www.fujitsu.com>

Base Compiler Invocation

C benchmarks:

icc -m64

C++ benchmarks:

icpc -m64

Fortran benchmarks:

ifort -m64

Benchmarks using both Fortran and C:

icc -m64 ifort -m64

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
 416.gamess: -DSPEC_CPU_LP64
 433.milc: -DSPEC_CPU_LP64
 434.zeusmp: -DSPEC_CPU_LP64
 435.gromacs: -DSPEC_CPU_LP64 -nofor_main
 436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
 437.leslie3d: -DSPEC_CPU_LP64
 444.namd: -DSPEC_CPU_LP64
 447.dealII: -DSPEC_CPU_LP64
 450.soplex: -DSPEC_CPU_LP64
 453.povray: -DSPEC_CPU_LP64
 454.calculix: -DSPEC_CPU_LP64 -nofor_main
 459.GemsFDTD: -DSPEC_CPU_LP64
 465.tonto: -DSPEC_CPU_LP64
 470.lbm: -DSPEC_CPU_LP64
 481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
 482.sphinx3: -DSPEC_CPU_LP64



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Fujitsu

SPECfp2006 = 113

PRIMERGY BX2560 M1, Intel Xeon E5-2640 v3, 2.6 GHz

SPECfp_base2006 = 107

CPU2006 license: 19

Test date: Dec-2014

Test sponsor: Fujitsu

Hardware Availability: Sep-2014

Tested by: Fujitsu

Software Availability: Sep-2014

Base Optimization Flags

C benchmarks:

-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch
-ansi-alias

C++ benchmarks:

-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -ansi-alias

Fortran benchmarks:

-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch

Benchmarks using both Fortran and C:

-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch
-ansi-alias

Peak Compiler Invocation

C benchmarks:

icc -m64

C++ benchmarks:

icpc -m64

Fortran benchmarks:

ifort -m64

Benchmarks using both Fortran and C:

icc -m64 ifort -m64

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

433.milc: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-auto-ilp32 -ansi-alias

470.lbm: basepeak = yes

482.sphinx3: -xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -ansi-alias
-parallel

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Fujitsu

SPECfp2006 = 113

PRIMERGY BX2560 M1, Intel Xeon E5-2640 v3, 2.6 GHz

SPECfp_base2006 = 107

CPU2006 license: 19

Test date: Dec-2014

Test sponsor: Fujitsu

Hardware Availability: Sep-2014

Tested by: Fujitsu

Software Availability: Sep-2014

Peak Optimization Flags (Continued)

C++ benchmarks:

444.namd: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-fno-alias -auto-ilp32

447.dealIII: basepeak = yes

450.soplex: basepeak = yes

453.povray: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll4
-ansi-alias

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2
-inline-level=0 -scalar-rep-

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2
-inline-level=0 -opt-prefetch -parallel

465.tonto: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-inline-calloc -opt-malloc-options=3 -auto -unroll4

Benchmarks using both Fortran and C:

435.gromacs: basepeak = yes

436.cactusADM: basepeak = yes

454.calculix: -xCORE-AVX2 -ipo -O3 -no-prec-div -auto-ilp32 -ansi-alias

481.wrf: basepeak = yes

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.html>

<http://www.spec.org/cpu2006/flags/Fujitsu-Platform-Settings-V1.2-HSW-RevA.html>



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Fujitsu

SPECfp2006 = 113

PRIMERGY BX2560 M1, Intel Xeon E5-2640 v3, 2.6 GHz

SPECfp_base2006 = 107

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Dec-2014

Hardware Availability: Sep-2014

Software Availability: Sep-2014

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.xml>

<http://www.spec.org/cpu2006/flags/Fujitsu-Platform-Settings-V1.2-HSW-RevA.xml>

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.2.
Report generated on Tue Mar 10 16:03:26 2015 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 10 March 2015.